



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
Before the Board of Patent Appeals and Interferences

In re Patent Application of

FISHER et al.

Atty. Ref.: 540-231

Serial No. 09/623,681

TC/A.U.: 3726

Filed: September 7, 2000

Examiner: David Bryant

For: MANUFACTURING AND ASSEMBLY OF STRUCTURES

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April 12, 2004

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REPLY BRIEF

This Reply Brief is responsive to the new points of argument raised by the Examiner for the first time in the Examiner's Answer mailed February 10, 2004, the date of response to which is April 12, 2004 (April 10, 2004 falling on a Saturday).

As a preliminary matter, the statement by the Examiner indicating that the statement of the status of claims contained in the Brief is incorrect is not understood. Appellants state that claims 1-6 and 8-12 are rejected either as anticipated or obvious in view of the cited prior art. The review of the Examiner's Answer confirms that claims 1-6 and 8-12 are still and remain rejected as being obvious over the cited prior art. Why the Examiner believes this is incorrect is not apparent.

Secondly, this is appellants' second Appeal, as in response to the first Appeal Brief, the Examiner issued a second and Final rejection, necessitating the preparation and filing of a second notice of Appeal and Appeal Brief.

The Examiner raises three new issues requiring comment by appellants by way of this Reply Brief and they are noted as follows:

- (a) The Examiner suggests he does not rely on the Thomas reference, but misses the "teaching away" argument;
- (b) The Examiner states there is no "convincing evidence that the Thomas material cannot be used with AAPA," but this is not the test of patentability; and
- (c) The Examiner's admission that the "AAPA does not teach a film or sheet of shim material" confirms the patentability of appellants' inventive combination.

(a) The Examiner suggests he does not rely on the Thomas reference, but misses the "teaching away" argument

The Examiner states on page 7 of the Examiner's Answer that "Thomas has not been relied upon to teach the specific sequence of steps recited by appellant." However, this appears to be the Examiner's response to the first error noted in appellants' Appeal Brief, i.e. that "Thomas teaches away from curing and machining steps prior to assembly."

The fact that Thomas has not been relied upon bears no relationship to the issue of whether the Thomas reference "teaches away" from the sequence of steps set out in the AAPA. Thomas specifically teaches his preformed strips are to be used with a process

which includes first “positioning,” then “assembling,” then “curing” and then machining if needed. The assembling step being located immediately after the positioning step is substantially different from appellants’ claimed sequence of steps. In order to assemble the materials after the positioning step, it is necessary that the shim material be either in a paste form or a very soft strip form so that it can be deformed when the “assembling” step occurs as taught in Thomas.

The point raised in appellants’ “Errors in the Final Rejection” section (a) is that the Thomas reference clearly, in conjunction with his caulking compound consistency or his soft “strip form” format, requires that the curing and machining steps occur **after** the assembling step. This teaching would clearly lead one of ordinary skill in the art away from appellants’ claimed combination of steps in which there is “positioning,” “curing,” “machining” and “assembling.”

The Examiner does not deny that Thomas “teaches away” from appellants’ claimed sequence of steps. Apparently the Examiner solves this major deficiency in his argument by ignoring it and merely stating that he does not rely upon Thomas. The Court of Appeals for the Federal Circuit has consistently held that it is “error to find obviousness where reference ‘diverge from and teach away from the invention at hand.’” *In re Fine*, 5 USPQ2d 1596, 1599 (Fed. Cir. 1988). Moreover, the Court held that “the PTO has the burden under §103 to establish a *prima facie* case of obviousness.” *Id.* at 1598.

For the Examiner to ignore the fact that Thomas teaches away from appellants’ claimed combination of method steps is clear error on the part of the Examiner who has

the burden of proof in his obviousness rejection. Accordingly, for this reason alone, the combination of Thomas and AAPA would not be obvious, as one would need additional knowledge and skill to know that the method steps associated with Thomas' disclosure of "strip form" shim material should be ignored, while the "strip form" is substituted for the liquid or paste form disclosed in the AAPA. The Examiner's ignoring of the "teaching away" argument does not obviate the argument.

(b) The Examiner states there is no "convincing evidence that the Thomas material cannot be used with AAPA," but this is not the test of patentability

The Examiner states on page 7 of the Examiner's Answer that "there is no convincing evidence that the shim material in the form of preformed strips cannot be used in the sequence taught by AAPA."

The burden of establishing obviousness of a combination of references is clearly on the Patent Office and not on the appellants. Yet, the Examiner appears to take the position that, absent some "convincing evidence" that the Thomas "preformed strips" cannot be combined with the AAPA, such combination is obvious. This is not the standard of obviousness and adoption of this rationale would turn Federal Circuit precedent on its head.

As set out in appellants' Appeal Brief, section (c), the Court of Appeals has consistently held that the burden is on the Examiner to show some motivation for combining features from the various references in an obviousness rejection. As pointed out in the Appeal Brief error (c), there is no suggestion or motivation for combining the

Thomas and AAPA references. The Examiner's comments and rationale comprise an attempt to shift the burden to the appellants by stating that there is no "convincing evidence" that the combination cannot be made, and thereby improperly avoids the issue raised in the Appeal Brief.

Appellants' invention is an improvement to an existing method which requires (1) positioning, (2) curing, (3) machining and then (4) assembling as a sequence of steps, with the beneficial effect being the use of "one of a film and sheet of preformed shim material" on the substructure immediately prior to the curing step. This sequence of steps allows an even coating of shim material on the substructure to be completely cured in place and then machined as would normally be the case. This avoids the problem in the admitted prior art of having to manually spreading layers of shim material on the structures so that they can be cured (and the attendant health and inconsistent thickness application problems noted in appellants' specification).

While the Examiner believes it would be obvious to substitute the Thomas shim material for the shim material in the AAPA, there is no suggestion for such substitution, and, indeed, as noted above, the Thomas reference clearly teaches away from such substitution. The Examiner's failure to provide any motivation for ignoring the teachings of the Thomas reference and combining the one portion of the Thomas reference which is applicable (as proven by appellants' invention) is simply without support. There is certainly no requirement that appellants provide any "convincing evidence" that the combination cannot be made, and indeed, as evidenced by appellants' claims, the

combination can be made. The combination is just completely unobvious in view of the AAPA and the Thomas references.

(c) The Examiner's admission that the "AAPA does not teach a film or sheet of shim material" confirms the patentability of appellants' inventive combination

The Examiner again "agrees" that "AAPA does not teach a film or sheet of shim material." (Page 8 of the Examiner's Answer, response to part (b) of the Errors in the Final Rejection in the Appeal Brief.) The admission that the AAPA teaching does not teach appellants' claimed steps is again appreciated and is discussed in appellants' Appeal Brief, both in sections (b) and (c) of the Errors in the Final Rejection.

The Examiner's admission confirms that, in the AAPA sequence of steps, there is no step which teaches or suggests the use of a film or sheet of shim material. The Examiner ignores the fact that while Thomas teaches a soft strip of shim material, there is no teaching or indication that it would be compatible with appellants' sequence of steps. In addition, Thomas specifically teaches away from the use of a film or sheet of shim material in appellants' claimed sequence of steps. Thomas requires (1) positioning, (4) assembly, (2) curing and then (3) machining, instead of appellants' claimed sequence of steps, i.e. (1) positioning, (2) curing, (3) machining and (4) assembling.

As a result, the Examiner has provided no indication or suggestion as to why it would be obvious to combine the one feature disclosed in the Thomas reference with the AAPA in order to form appellants' claimed invention. Because the burden is on the Patent Office to provide some suggestion or motivation for the combination and the

Examiner has failed to provide such suggestion, the claims on appeal are clearly patentable over the AAPA/Thomas combination.

CONCLUSION

The Examiner's failure to respond to the Appeal Brief argument that Thomas "teaches away" from appellants' claimed sequence of steps has been ignored in the Examiner's Answer. Instead, the Examiner responds by arguing that the burden is on the appellants to provide "convincing evidence" that the claimed combination cannot be made. However, current Federal Circuit precedent confirms that there is no such burden on the appellants. Moreover, the Examiner has failed to provide any reason or motivation for combining the AAPA and the Thomas reference, especially in view of Thomas' teaching away from appellants' claimed combination.

Thus, and in view of the above, the rejection of claims 1-6 and 8-12 over the cited prior art is clearly in error and reversal thereof by this Honorable Board is respectfully requested.

Respectfully submitted,

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